

REMARKS

In the Office Action mailed March 16, 2007, the Examiner noted that claims 1-35 were pending, and rejected claims 1-35. Claims 1, 23-26, 29, and 31-32 have been amended, new claim 36 has been added and, thus, in view of the forgoing claims 1-36 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections are traversed below.

On page 3 of the Office Action, the Examiner rejected claims 1-21, 23, 25 and 29-35 under 35 U.S.C. § 102 as anticipated by Anderson. In particular the Examiner points to figures 2a and 2b concerning the arc shape and/or natural motion shape of the interface. The text of Anderson discussing the figures states:

The options are presented on the screen as lying on a curved band. As shown in the FIGS. 2a and 2b this band is adapted such that the options can easily be reached by a hand without lifting the wrist from the desktop. In the Figures two positions of a hand 20 are shown while reaching at points 22a and 22b on a circle 22. The positions of the areas to be pointed at should be in a band within this circle and preferably following its circumference.

(See Anderson, col. 5, lines 5-12)

This text indicates that the curve of the band is based on the wrist movement not based on an elbow motion based arc or a shoulder motion based arc or a finger motion based arc. Claim 1 emphasizes "the arc shaped control zone aligned to a natural user motion produced by rotation of a user elbow or rotation of the user elbow and a user wrist". That is, Anderson discloses only wrist motion and the invention of claim 1 emphasizes elbow or wrist and elbow motion. Anderson does not teach or suggest such.

Independent claims 11, 16, 23, 25, 29, and 30 also emphasize an elbow based arc while independent claim 32 emphasizes an independent finger arc and independent claim 34 emphasizes a shoulder arc.

It is submitted that the claims 1-21, 23, 25 and 29-35 and 36 patentably distinguish over Anderson and withdrawal of the rejection is requested.

On page 13 of the Office Action, the Examiner rejected claims 26 and 28 under 35 U.S.C. § 102 as anticipated by Ono.

First, claim 26 emphasizes that the controls of the interface conform to the arc shape. Ono has controls that conform to a straight line, in particular, the menu items are in a stair-stepped arrangement with an inclination angle that is specified as constant (see col. 3, line 32)

and a stair step constant process is used as shown in figure 10. Withdrawal of the rejection for this reason is requested.

Second, Ono describes:

Since the locus for tracing the pull-down menu with a pen without causing an unnatural force depends on an individual calibration for each individual is essential. First, each individual is caused to indicate one point on the screen as shown in FIG. 7. Then, the wrist is caused to indicate an end point to which it can move without causing unnatural force, and the locus traced by the pen point is fitted to an arc, thereby obtaining an arc along which the menu is to be displayed. (See Ono, col. 3, lines 16-24)

As can be seen, Ono appears uses a single stroke drawn by a user. In contrast, as emphasized in claim 26, there a number of "strokes" used to make the arc. Withdrawal of the rejection for this additional reason is requested.

Finally, claim 26 emphasizes use of "strokes ... caused by motion of an arm about an elbow of the user". Ono does not teach or suggest such. Withdrawal of the rejection of claim 26 for this further reason is requested.

Claim 28 emphasizes that strokes of different people are used. Ono discusses a single person making a single stroke. Ono does not teach or suggest such. Withdrawal of the rejection of claim 28 for this reason is requested.

It is submitted that the claims 26 and 28 patentably distinguish over Ono and withdrawal of the rejection is requested.

Pages 14 and 15 of the Office Action rejects claims 24 and 27 under 35 U.S.C. § 103 over Anderson and Ono.

First, these claims are dependent claims, claim 24 depends from claim 23 and claim 27 depends from claim 26, and they are patentable for at least the elbow arc features recited therein. Withdrawal of the rejection of claims 24 and 27 for this reason is requested.

Second, with respect to claim 24, the Examiner points to Ono for the feature of placing a custom or standard arc when selected by a user. The text pointed to by the Examiner states:

Since the locus for tracing the pull-down menu with a pen without causing an unnatural force depends on an individual calibration for each individual is essential. First, each individual is caused to indicate one point on the screen as shown in FIG. 7. Then, the wrist is caused to indicate an end point to which it can move without causing unnatural force, and the locus traced by the pen point is fitted to an arc, thereby obtaining an arc along which the menu is to be displayed. (See Ono, col. 3, lines 16-24)

As can be seen, Ono discusses only an individually calibrated or custom arc.

It is submitted that claims 24 and 27 distinguishes over the prior art and withdrawal of the rejection is requested.

Page 16 of the Office Action rejects claims 22 under 35 U.S.C. § 103 over Anderson and Keely.

First, as noted above Anderson says nothing about an elbow arc; Anderson discusses a wrist arc. Kelly says nothing about this. Withdrawal of the rejection of claim 22 for this reason is requested.

Second, the Examiner asserts that movement of an elbow will move a wrist. However, the claim does not call for merely moving the wrist but for "position conforming to a natural motion arc of a hand caused by motion of an arm about an elbow and of the hand moving about a wrist of the user". Anderson even when combined with Keely says nothing about this. Withdrawal of the rejection for this additional reason is requested.

Third, the Examiner looks to Keely for intersecting arcs. However, it is not just that arcs intersect but there are controls along the arcs that intersect ("controls aligned along the arc and controls aligned along a counter arc intersecting the motion arc at 90 degrees"). Keely does not teach or suggest such. Withdrawal of the rejection of claim 22 for this further reason is requested.

It is submitted that claim 22 distinguishes over the prior art and withdrawal of the rejection is requested.

The dependent claims depend from the above-discussed independent claims and are patentable over the prior art for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art. For example, claim 15 emphasizes that the controls are oriented and shaped to conform to a wrist arc caused by a hand moving about a wrist of the user. Anderson does not teach or suggest such orientation and shaping. It is submitted that the dependent claims are independently patentable over the prior art.

New claim 36 emphasizes a method of determining a position of a cursor and positioning an arc shaped graphical user interface responsive to the position where the arc is defined by a natural user motion of a hand when an arm is moved about an elbow of a user. Nothing in the prior art teaches or suggests such. It is submitted that this new claim, which is different and not narrower than prior filed claims, distinguishes over the prior art.

It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: /J. Randall Beckers/
J. Randall Beckers
Registration No. 30,358

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501